

REMARKS

In the action of October 4, 2010, the examiner rejected claim 1 under 35 USC § 112, second paragraph; rejected claims 1-9 under 35 USC § 103(a) as unpatentable over Grez et al. in view of Woog et al.; rejected claims 10 and 11 under 35 USC § 103(a) as unpatentable over Grez et al. in view of Woog et al. and further in view of Kushida et al.; and rejected claims 12 and 13 under 35 USC § 103(a) as unpatentable over Grez et al. in view of Woog et al. and further in view of Giuliani et al.

Applicants have reviewed the examiner's action and studied the references applied by the examiner. Claim 1 has been amended to clarify applicant's invention over the applied references. With respect to the references, it is recognized that the primary reference to Grez et al. teaches the capability of changing the drive frequency of the appliance. However, the drive frequency is changed only at particular intervals, and then only after an induced signal, representative of frequency or amplitude, in the stator coil is compared against a preselected desired frequency and/or amplitude to determine differences between the two. If there are differences, and there may not be any, the operating frequency/amplitude or other characteristics of the drive signal is then changed. The purpose of Grez is to bring the frequency/amplitude of the appliance brushhead back to a preselected value. This is a very different arrangement from applicant's claimed invention, in which the drive frequency is changed in a regular manner, relative to a center frequency, in accordance with a modulation signal for example. This results in a regularly varying change of amplitude of the brushhead.

The important consideration is that in applicant's invention, the frequency and then the amplitude of the brushhead change in a regular, predictable, predetermined manner, as opposed to the change in drive frequency in Grez, which is not regular nor predictable but is based on immediate values of frequency compared against a preset standard value. Hence, applicant's invention differs significantly, both structurally and functionally, from Grez and Woog et al. Accordingly, claim 1 is allowable over the combination and Grez and Woog et al.

Since claims 2-13 are dependent upon claim 1, those claims are also allowable. Note that claims 4 and 8-11 all have to do with modulation of the drive frequency, which accomplished the regular predetermined change in drive frequency. There is no teaching of such limitations in any

of the applied references. Also note claim 12 which includes a limitation to two driving signal sources. In applicant's claimed invention the two drive signals are provided at the same time and combined, which results in a regularly varying drive signal frequency. Such an arrangement is not disclosed or taught in Giuliani. Hence, claim 12 is independently patentable over the applied references.

In view of the above, allowance of the application is respectfully requested.

The Commissioner is authorized to charge any deficiency or credit any over payment to Deposit Account 07-1900.

Respectfully submitted,
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